

CLAIMS

What is claimed is:

1. A color image forming method of a color image forming apparatus that is connected to a host computer and which receives image forming data generated in the host computer, comprising:
 - generating first image data image-processed into a format suitable for use in a color image forming engine by a first image processor disposed within the color image forming apparatus;
 - generating second image data image-processed into a format suitable for use in the color image forming engine by a second image processor disposed outside the color image forming apparatus; and
 - receiving at least one of the first and second image data and selectively outputting the at least one of the first and second image data to the color image forming engine via an image data controller disposed within the color image forming apparatus.
2. The method of claim 1, wherein the second image processor is a system expansion card which is insertable into the host computer.
3. The method of claim 1, wherein the second image processor is externally attached to the host computer.
4. The method of claim 1, wherein the first image processor is slower than the second image processor.
5. The method of claim 4, wherein the first image processor operates according to a graphic device interface (GDI) format.
6. The method of claim 4, wherein the second image processor operates according to a page description language (PDL) format.
7. The method of claim 6, wherein the second image processor has a video controller which operates according to the PDL format.

8. The method of claim 1, further comprising driving, via the color image forming engine, mechatronics to form the color image.

9. The method of claim 1, wherein the first image processor generates image data suitable for one of a single path mode and a multi-path mode of forming a color image.

10. The method of claim 1, wherein the second image processor generates image data suitable for one of a single path mode and a multi-path mode of forming a color image.

11. The method of claim 1, wherein the image data controller is located within the first image processor.

12. The method claim 2, wherein the second image processor is slower than the first image processor.

13. A color image forming apparatus connected to a host computer to receive image forming data generated in the host computer, comprising:

a first image data generator disposed within a first image processor disposed in the color image forming apparatus, which generates first image data image-processed into a format suitable for use in a color image forming engine;

a second image data generator disposed in a second image processor disposed outside of the color image forming apparatus, which generates second image data image-processed into a format suitable for use in the color image forming engine; and

an image data controller disposed within the color image forming apparatus and which receives at least one of the first and second image data and which selectively outputs the at least one of first and second image data to the color image forming engine.

14. The apparatus of claim 13, wherein the second image processor is a system expansion card which is insertable into the host computer.

15. The apparatus of claim 13, wherein the second image processor is externally attached to the host computer.

16. The apparatus of claim 13, wherein the first image processor is slower than the second image processor.
17. The apparatus of claim 16, wherein the first image processor operates according to a graphic device interface (GDI) format.
18. The apparatus of claim 16, wherein the second image processor operates according to a page description language (PDL) format.
19. The apparatus of claim 18, wherein the second image processor has a video controller which operates according to the PDL format.
20. The apparatus of claim 13, wherein the color image forming engine includes an engine controller which receives image data from the image data controller and which drives engine mechatronics to form the image.
21. The apparatus of claim 13, wherein the first image processor generates image data suitable for one of a single path mode and a multi-path mode of forming a color image.
22. The apparatus of claim 13, wherein the second image processor generates image data suitable for one of a single path mode forming a color image and a multi-path mode of forming the color image.
23. The apparatus of claim 13, wherein the image data controller is disposed within the first image processor.
24. The apparatus of claim 1, wherein the second image processor is externally attached to the image forming apparatus.
25. The apparatus of claim 13, wherein the second image processor is slower than the first image processor.
26. A color image forming system comprising:

a color image forming apparatus having therein a first data image generator which generates first image data;

a second image generator which generates second image data and is external to the color image forming apparatus;

an image data controller which receives the first and the second image data, selectively outputs the first and the second image data; and

a color image forming engine which receives the first and the second data from the image data controller and which is disposed in the color image forming apparatus.

27. The system of claim 26, further comprising a first image processor in which the first image data generator is disposed.

28. The system of claim 26, further comprising a first image processor in which the image data controller is disposed.

29. The system of claim 26, further comprising a second image processor in which the second image data generator is disposed.

30. The system of claim 29, further comprising a host computer in which the second image processor is disposed.

31. The system of claim 30, wherein the second image processor is a system expansion card insertable into the host computer.

32. The system of claim 26, further comprising an engine mechatronics unit, wherein the color image forming engine includes an engine controller which receives the first and the second image data and which controls the engine mechatronics unit to form an image.

33. The system of claim 26, wherein the first image processor is faster than the second image data processor.

34. The system of claim 26, wherein the second image processor is faster than the first image data processor.